



Our Docket No: 005493.P002

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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
 )  
Malcolm J. Simons ) Examiner: Not yet assigned  
 )  
Application No: 10/005,626 ) Art Unit: 1655  
 )  
Filed: December 3, 2001 )  
 )  
For: Intron Sequence Analysis Method for )  
Detection of Adjacent and Remote )  
Locus Alleles as Haplotypes )

**PRELIMINARY AMENDMENT AND REMARK**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examining the above-referenced application, the Applicant respectfully requests the Examiner to enter the following amendment and to consider the following remark.

**FIRST CLASS CERTIFICATE OF MAILING**

I hereby certify that I am causing the above-referenced correspondence to be deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and that this paper or fee has been addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

Date of Deposit: December 13, 2002

Name of Person Mailing Correspondence: Lori E. True

Lori E. True

Signature

December 13, 2002

Date

## **Amendment**

### **In the Specification**

Please delete the first paragraph on page 2 and substitute therefore the following clean paragraph. A marked up copy of the paragraph, showing inserted text, is attached as Appendix A.

"This application is a Continuation of U.S. application Serial No. 09/070,497; which was a Continuation of U.S. application Serial No. 08/682,054, now issued U.S. Patent No. 5,789,568; which was a Divisional of U.S. application Serial No. 07/949,652, now issued U.S. Patent No. 5,612,179; which was a Continuation of U.S. application Serial No. 07/551,239, now issued U.S. Patent No. 5,192,659; which was a Continuation In Part of U.S. application Serial No. 07/465,863, abandoned; which was a Continuation In Part of U.S. application Serial No. 07/405,499, abandoned; which was a Continuation In Part of U.S. application Serial No. 07/398,217, abandoned. Each of those applications is incorporated herein by reference in its entirety"

### **In the Claims:**

Please delete pending claims 1-34 and substitute therefore new claims 35-50. A clean set of claims as amended is shown below. A marked-up copy of the claims, showing the new claims added, is attached hereto as Appendix B.

35. (New) A method for genetic analysis, comprising:

- a) amplifying a non-coding region of genomic DNA to produce an amplified DNA sequence;
- b) analyzing the amplified DNA sequence to identify genetic variation in the non-coding region; and
- c) correlating the genetic variation with a trait conferred by allelic variation in a coding region in genetic linkage with the non-coding region.

36. (New) The method of claim 35, wherein the trait is a genetic disease.
37. (New) The method of claim 35, wherein the trait is susceptibility to a disease.
38. (New) The method of claim 36, wherein the disease is monogenic.
39. (New) The method of claim 36, wherein the disease is multigenic.
40. (New) The method of claim 35, wherein the analyzing comprises hybridizing the amplified DNA sequence to an oligonucleotide.
41. (New) The method of claim 35, wherein the amplified DNA sequence is labeled.
42. (New) The method of claim 40, wherein the oligonucleotide is a sequence-specific oligonucleotide.
43. (New) The method of claim 40, wherein the amplified DNA sequence is hybridized with a plurality of oligonucleotides.
44. (New) The method of claim 35, wherein the genetic variation comprises a plurality of polymorphisms.
45. (New) The method of claim 44, wherein the plurality of polymorphisms comprise single base polymorphisms.
46. (New) The method of claim 35, wherein the non-coding region is remote from the coding region.
47. (New) The method of claim 46, wherein the method is performed on a plurality of non-coding regions from a selected chromosome region in different individuals.
48. (New) The method of claim 47, wherein (a) and (b) of the method are repeated for a plurality of non-coding regions from a second selected chromosome region from the different individuals.
49. (New) The method of claim 35, wherein the non-coding region is an intron sequence.
50. (New) The method of claim 35, wherein the non-coding region is a regulatory region.

### **Remark**

By this amendment, original claims 1-34 have been deleted. New claims 35-50 have been added. Claims 35-50 are presently pending in the case.

Support for the amendments may be found in the specification at least as follows. Claim 36 is supported at least by claim 1 of USSN 07/949,652 (issued U.S. Patent No. 5,612,179) as well as the Specification at least at pg. 7, line 15 through pg 8, line 11; pg. 8, lines 18-22; pg. 8, lines 28-31; pg. 10, line 29 through pg. 11, line 8; and pg. 75, line 2 through pg. 79, line 2. Claim 37 is supported in the Specification at least at pg. 75, line 1 through pg. 79, line 2. Claim 38 is supported in the Specification at least at pg. 4, line 2. Claim 38 is supported by at least by claim 15 of USSN 07/949,652 (issued U.S. Patent No. 5,612,179) as well as the Specification at least at pg. 8, line 7; pg. 75, line 12 through pg. 77, line 2 and pg. 78, line 31. Claim 39 is supported by the Specification at least at pg. 8, line 7 and pg. 78, line 31. Claim 40 is supported in the Specification at least at pg. 39, line 5 through pg. 40, line 14. Claim 41 is supported in the Specification at least at pg. 39, lines 21-28 and pg. 40, lines 3-14. Claim 42 is supported in the Specification at least at pg. 20, lines 6-11. Claim 43 is supported in the Specification at least at pg. 39, line 5 through pg. 40, line 14.

Claim 44 is supported at least by claim 26 in USSN 07/949,652 (issued U.S. Patent No. 5,612,179) as well as the Specification at least at pg. 9, lines 27-34; pg. 14, lines 25-29 and pg. 15, lines 12-14. Claim 45 is supported in the Specification at least at pg. 7, line 30; pg. 19, lines 33-35 and pg. 20, lines 8-11. Claim 46 is supported in the Specification at least at pg. 7, lines 33-36 and pg. 12, lines 15-21. Claim 47 is supported in the Specification at least at pg. 14, lines 29-33 and pg. 76, lines 22-25. Claim 48 is supported in the Specification at least at pg. 76, lines 22-25; pg. 77, line 30 through pg. 78, line 4 and pg. 78, lines 17-23. Claim 49 is supported in the Specification at least at pg. 10, line 29 through pg. 11, line 8 and pg. 17, lines 5-19. Claim 50 is supported in the Specification at least at pg. 16, lines 18-22; pg. 75, lines 7-11 and pg. 76, lines 25-28.

The new claims are added to further clarify the scope of the claimed invention and not for any reasons related to patentability of the subject matter. Applicants respectfully submit that the addition of new claims 35-50 does not introduce new subject matter.

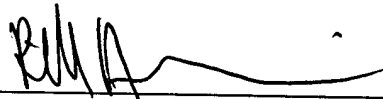
**Charge our Deposit Account**

It is believed that no fee is due as a result of the Preliminary Amendment. However, if any fee is due, please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: December 13, 2002



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